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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,838	06/14/2001	Peter Jurgen Rohl	RD-28355/USA	2850

7590

07/05/2005

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EXAMINER

CRAIG, DWIN M

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,838

Applicant(s)

ROHL, PETER JURGEN

Examiner

Dwin M Craig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

PD

DETAILED ACTION

1. Claims 1-20 have been presented for reconsideration in view of Applicant's arguments.

Response to Arguments

2. Applicants' arguments presented in the 4/8/2005 response have been fully considered.

The Examiner's response is as follows.

- 2.1 Regarding the Applicant's response to the 35 USC § 112-first paragraph rejections of claims 1-20. The Examiner has found Applicants' arguments to be persuasive and withdraws the 35 USC § 112 First paragraph rejections of the claims.

- 2.2 Regarding the Applicants' arguments regarding the 35 USC § 112-second paragraph rejections of claims 1-20. The Examiner has found Applicants' arguments to be persuasive and withdraws the earlier 35 USC § 112-second paragraph rejections of claims 1-20.

- 2.3 Regarding the Applicant's response to the 35 USC § 102 rejections of claims 1 and 7. The Examiner has found Applicant's argument to be persuasive and withdraws the earlier 35 USC § 102 rejections of claims 1 and 7.

- 2.4 Regarding the Applicant's response to the Examiner's use of Official Notice.

The Applicant argued, *on page 9 of the 4/8/2005 response*.

"...no basis whatsoever has been provided for either the underlying fact that these things [chunking, trimming, tagging, macros and finite difference]sic were well known or that they could be combined with the teachings of the reference, even if these references could be considered as prior art."

The Examiner respectfully traverses Applicant's arguments and reserves the right to use Official Notice. The Examiner respectfully objects to the conclusion that Applicant has opined that no possible prior art reference could be combined with any other prior art teaching. The

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Examiner notes that 35 USC § 103(a) is a law that has been upheld in both the Federal Circuit and the Supreme Court and therefore this statute is available to the Examiner in order to reject Applicant's expressly claimed limitations, please see *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Further, the Examiner notes that in US Patent 5,808,617 *Kenworthy et al.* obviously disclosed the method of chunking and tagging as well known methods in the art of computer graphics and more specifically Computer Aided design Packages, see **Figure 18 and Col. 6 line 53** which states,

*"The image processing system 100 achieves a vast price-performance improvement over existing high quality 3-D graphics systems known to the inventors. A number of advances in computer graphics contribute to this improvement. These advances include: composited images layers, image compression, **chunking**, and multi-pass rendering. We introduce these advances here, and describe these and other advances in more detail below."*

The Examiner notes that the graphics method, *chunking* is part of a group of technologies that helps to achieve a *vast price-performance improvement in existing quality 3-D graphics systems*, an artisan of ordinary skill, at the time of Applicants' invention would certainly be motivated to incorporate such a technology if that technology provides a **vast** improvement. The Examiner notes that the same *Kenworthy et al.* reference discloses **Col. 15 line 20** discloses, *tagging*.

2.5 Regarding the Applicant's response to the 35 USC § 103(a) rejections of claims 2-6 and 8 as regards the use of Official Notice. The Examiner withdraws the earlier rejection of claims 2-6 and 8 because the *Rassaian* reference is not a valid prior art reference.

2.6 An updated search has revealed new art.

Specification

3. **Claim 11** is objected to because of the following informalities: The Examiner notes that the Applicant probably intended for the following sentence “*executing and engineering*” to read “*executing an engineering*”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. **Claims 1, 2 and 6** are rejected under 35 USC § 102(e) as being anticipated by **6,434,441 Beauchamp et al.**

4.1 As regards Independent **Claim 1** the *Beauchamp et al.* reference discloses *Automatically analyzing an article of manufacture comprising; (Abstract), a) providing a master model and a context model specification; (Figure 3 Block 2 and Col. 4 line 10 “Create a parametric*

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geometrical representation of the part (Master Model)...), *b) creating a context model from said master model and said context model specification; (Figure 3 block 1, Col. 3 lines 62-65), c) translating said context model into an engineering analysis model compatible with an engineering analysis program; (Col. 4 line 16 defined as a computer model/representation usable within a Computer Aided Design Software, (commercially available examples of which are Unigraphics, ProE, IDEAS, etc.)), d) executing said engineering analysis program to generate a performance estimate from said engineering analysis model and; (Figure 4 block 215 Col. 6 lines 45-65 and Col. 9 lines 42-50), e) optionally modifying said master model to improve said performance estimate. (Col. 10 lines 14-28).*

4.2 As regards dependent **Claim 2** the *Beauchamp et al.* reference discloses context models and associative copies from the Master Model (**Figure 4 items 213 and 214**).

4.3 As regards dependent **Claim 6** the *Beauchamp et al.* reference discloses the functional equivalent of a macro file (**Figure 3 Block 7**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 11-20** are rejected under 35 USC 103(a) as being unpatentable over **6,625,507**

Dickerson et al. in view of **5,808,617 Kenworthy et al.** and **6,587,741 Chetta et al.**

5.1 As regards independent **Claim 11** the *Dickerson et al.* reference discloses, *a method for automatically analyzing a turbine engine disk comprising: (ABSTRACT, Col. 1 lines 50-67), a) loading a turbine disk CAD model from a database; (Figure 3E item 260 this is the functional equivalent of selecting a part from a CAD database), b) acquiring a geometric description of a region of interest from an user; (Col. 6 lines 54-65), c) creating a context model from said geometric description and said CAD model (Figure 2 Col. 6 lines 43-53), e) executing an [sic] engineering analysis program using said mesh to generate a performance estimate; f) optionally modifying said turbine disk CAD model to improve said performance estimate. (Col. 2 lines 48-67).*

However the *Dickerson et al.* reference does not expressly disclose trimming, tagging and chunking and generating a mesh.

Kenworthy et al. obviously disclosed the method of chunking and tagging as well known methods in the art of computer graphics and more specifically Computer Aided design Packages, *see Figure 18 and Col. 6 line 53* which states,

*"The image processing system 100 achieves a vast price-performance improvement over existing high quality 3-D graphics systems known to the inventors. A number of advances in computer graphics contribute to this improvement. These advances include: composited images layers, image compression, **chunking**, and multi-pass rendering. We introduce these advances here, and describe these and other advances in more detail below."*

The Examiner notes that the graphics method, *chunking* is part of a group of technologies that helps to achieve a *vast price-performance improvement in existing quality 3-D graphics systems*. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the *Dickerson et al.* reference to incorporate such a technology if that technology provides a vast improvement. The Examiner notes that the same *Kenworthy et al.* reference discloses **Col. 15 line 20** discloses, *tagging*.

The Examiner notes that the **Chetta et al. US patent 6,587,741** reference is incorporated in the *Kenworthy et al.* reference (**Col. 11 lines 41-53**). The *Chetta et al.* reference discloses generating a mesh for a CAD model of a turbine (**Col 17 line 4**).

5.2 As regards dependent **Claims 12** see *Dickerson et al.* reference (**Figure 2 Col. 6 lines 43-53**).

5.3 As regards dependent **Claims 13-15** see section **5.1** of this Office Action.

5.4 As regards dependent **Claim 16** the *Dickerson et al.* reference discloses the functional equivalent of a MACRO file (**Figure 3E item 264**).

5.5 As regards dependent **Claims 17 and 18** *Chetta et al.* discloses (**Col. 18 lines 32** The parametric model is used for finite element modeling to calculate).

5.6 As regards dependent **Claims 19 and 20** the *Dickerson et al.* reference discloses (**Figures 1 and 2**).

6. Dependent **Claims 3-5 and 7-10** are rejected under 35 USC § 103(a) as being unpatentable over **6,434,441 Beauchamp et al.** in view of **5,808,617 Kenworthy et al.** and **6,587,741 Chetta et al.**

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6.1 As regards independent **Claim 1** see section 4.1 of this Office Action.

6.2 As regards dependent **Claims 3-5** However the *Beauchamp et al.* reference does not expressly disclose trimming, tagging and chunking and generating a mesh.

Kenworthy et al. obviously disclosed the method of chunking and tagging as well known methods in the art of computer graphics and more specifically Computer Aided design Packages, see **Figure 18 and Col. 6 line 53** which states,

"The image processing system 100 achieves a vast price-performance improvement over existing high quality 3-D graphics systems known to the inventors. A number of advances in computer graphics contribute to this improvement. These advances include: composited images layers, image compression, chunking, and multi-pass rendering. We introduce these advances here, and describe these and other advances in more detail below."

The Examiner notes that the graphics method, *chunking* is part of a group of technologies that helps to achieve a *vast price-performance improvement in existing quality 3-D graphics systems*. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the *Beauchamp et al.* reference to incorporate such a technology if that technology provides a vast improvement. The Examiner notes that the same *Kenworthy et al.* reference discloses **Col. 15 line 20** discloses, *tagging*.

The Examiner notes that the **Chetta et al. US patent 6,587,741** reference is incorporated in the *Kenworthy et al.* reference (**Col. 11 lines 41-53**).

6.3 As regards dependent **Claims 7 and 8** *Chetta et al.* discloses (**Col. 18 lines 32** The parametric model is used for finite element modeling to calculate).

6.4 As regards dependent **Claims 9 and 10** the *Dickerson et al.* reference discloses (**Figures 1 and 2**).

Conclusion

7. Claims 1-20 have been presented for reconsideration based on Applicant's arguments.

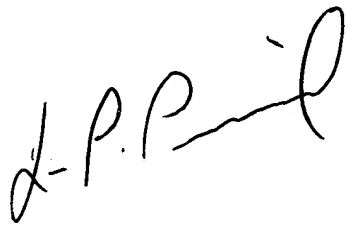
Claims 1-20 are rejected. This Office Action is **Non-Final**.

7.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwin M Craig whose telephone number is (571) 272-3710. The examiner can normally be reached on 10:00 - 6:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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